UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF WATER

MEMORANDUM

SUBJECT: Standard Definitions for the Five Source Availability Codes in the Safe Drinking Water Information System (SDWIS), and Recommendations for Baseline and Routine Monitoring

FROM: Ann M. Codrington, Director
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5/14/13

TO: Drinking Water Branch Chiefs
Drinking Water Enforcement Branch Chiefs
Regions I-X

In August 2010, EPA's Office of the Inspector General (OIG) transmitted a report to EPA's Assistant Administrator for Water, entitled *EPA Lacks Internal Controls to Prevent Misuse of Emergency Drinking Water Facilities*, Report No. 11-P-0001, October 12, 2010. The investigation had been undertaken in response to a community water system (CWS) in Illinois which was found to be distributing drinking water to its customers from a contaminated well. This well should have been disconnected from the distribution system and properly closed.

The OIG Report provides four recommendations for the Office of Ground Water and Drinking Water (OGWDW). In response to the first recommendation, this memorandum and attachment provide definitions for the five SDWIS facility availability codes used to indentify five source types tracked in SDWIS. In addition to definitions, the attachment provides recommendations for baseline and routine monitoring for the five types of sources.

BACKGROUND

The OIG report states "that EPA cannot accurately assess the risk of public water systems delivering contaminated drinking water from emergency facilities because of limitations in Safe Drinking Water Information System (SDWIS) data management." In addition, EPA and state officials interviewed for the report said currently there is no way to know whether an emergency facility has been put into service without notice from the public water system. The complete report can be found at the following: http://www.epa.gov/oig/reports/2011/20101012-11-P-0001.pdf.

The OIG report recommends that the Assistant Administrator for Water (1) develop standard definitions for the five facility availability codes (i.e., Permanent Utilization, Seasonal

Utilization, Interim Utilization, Emergency Utilization, and Other Utilization); (2) develop standard operating procedures to assist states with entering data into SDWIS/State databases; (3) determine whether additional fields are needed in the SDWIS/Federal Version to improve the oversight of emergency facilities; and (4) assess the risk associated with the unauthorized use of emergency facilities and, if necessary, develop controls to mitigate that risk.

In the Office of Water's response to the OIG report (September 16, 2010), the Assistant Administrator for Water stated that EPA's goal is to ensure that every American served by a public water system receives water that meets public health standards every day. The Agency believes its approach to protecting the nation's drinking water through the efforts of public water systems and state, local and federal government agencies has been effective. This approach includes states (with the exception of Wyoming) providing primary oversight of public water systems, water systems taking millions of samples each year to ensure water meets health standards, states and EPA conducting sanitary surveys and other site inspections to supplement monitoring and identify potential issues of concern, and EPA conducting regular reviews of state drinking water programs.

RESPONSE TO RECOMMENDATIONS

In response to the recommendations by the OIG, the OGWDW has already started and will continue discussions with the Association of State Drinking Water Administrators (ASDWA) to address these and other data issues.

Please note that it is not the intent of this memorandum to change SDWIS programming code. Rather, EPA is providing its interpretation of terms, already used in SDWIS, in order to encourage consistency in characterizing the ways in which water systems utilize sources. It is a first step in improving oversight of sources that may be utilized in a less predictable fashion (e.g., interim, emergency or other utilization). These definitions should assist persons involved in implementation of drinking water regulations (i.e., program and data users) to consistently enter source utilization data into SDWIS, ultimately improving overall data reliability, consistency and completeness and aiding states in the consistent application of monitoring requirements. If you have any questions, you may contact Mindy Eisenberg at (202) 566-1290 or Ed Moriarty at (202) 564-3864.

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ATTACHMENT

Recommended Source Availability Definitions

For proper implementation of the SDWIS availability codes, it is important to first clarify water system types as they apply to source availability definitions. The following terms "year-round," "seasonal" and "intermittent use" will be used to help illustrate the application of the source availability definitions.

- Year-round systems provide drinking water continuously throughout the year. Examples of year-round systems include municipalities and hospitals.
- Seasonal systems (e.g., camp grounds) are non-community water systems that do not operate as public water systems on a year-round basis and start up and shut down at the beginning and end of each operating season.
- Intermittent systems (e.g., church) are open year-round but not operated continuously.

For the purposes of SDWIS, surface water and/or ground water under the direct influence of surface water source types will be referred to as Subpart H sources.

Permanent Utilization – is a source used by a public water system on a routine and regular basis during the period of time the system is in operation during the year. Note that a seasonal system may also have what is considered a permanent source which is utilized for the entire operating period. A public water system utilizing a permanent source should have a monitoring plan which meets the requirements specified in 40 C.F.R. Part 141, based on source type (i.e., Subpart H or ground water), treatment, contaminant types to be monitored, period of operation and the population served.

Seasonal Utilization – is a source used by a public water system for a period less than the period of time that the system is in operation during the year; the public water system starts up and shuts down the source at the beginning and end of each operating season. This source availability type could be used on a recurring basis to supplement a permanent source during a particular season(s), and is part of a water system's planned or anticipated operating schedule. A public water system with a seasonal source availability type normally uses that source on a pre-determined schedule. An example of a seasonal source availability type might be a well-field or reservoir used by a municipality to supplement summer demand. A seasonal water system (e.g., a camp ground) may have both a permanent source (e.g., purchase from a municipality) and seasonal source (e.g., activate a well-field to supplement peak demand during the summer). Water systems using seasonal sources should have a monitoring plan which describes when the source will be used, source type (i.e., Subpart H or ground water), treatment, contaminant types to be monitored, period of operation and the population served.

Interim Utilization – is a source expected to be utilized by a public water system to supplement or temporarily replace another source (e.g., permanent or seasonal) where the interim source does not have a fixed or pre-determined schedule for activation. Both year-round and seasonal systems could have interim sources. An interim source could be made available to address peak demand, drought conditions, or could be put on line when another source is not available due to reasons such as treatment plant maintenance, permanent source delivery maintenance or source

contamination. An interim source would be available for use anytime during the water system's period of operation, but use is not planned like a seasonal source.

Guidance for Interim Sources: Public water systems using interim sources should have established standard operating procedures describing procedures for activating and closing the interim source and notifying the appropriate agency when the source is put into and removed from operation. Public water systems using an interim source should have a monitoring plan which describes when the source could be used, the source type (i.e., Subpart H or ground water), treatment, contaminant groups to be monitored, examples of conditions that could trigger using the source and the population served.

Emergency Utilization – a source that is neither part of a public water system's routine or regular operation nor expected to be used on a seasonal or interim basis. An emergency source is available if an unanticipated or emergency situation should arise (e.g., maintain pressure until a water main is repaired or replaced.) Both year-round and seasonal systems may have emergency sources. An emergency source is one that would be used for a limited period of time (e.g., maintaining water pressure.)

Guidance for Emergency Sources: The primacy agency should be notified (e.g., prior to or within 24 hours), following the activation of an emergency source. If this source is used for an extended period of time, the emergency source should be designated (i.e., permanent, seasonal or interim), as appropriate and applicable modifications made to the monitoring plan. Public water systems using emergency sources should have established standard operating procedures for activating and closing the emergency source, as well as providing notification to the appropriate agency when the source is put into and removed from operation. Public water systems using an emergency source should have an approved monitoring plan which describes when the source could be used, the source type (i.e., Subpart H or ground water), treatment, contaminant types to be monitored, examples of conditions that might trigger using the source and the population served. Public water systems must meet National Primary Drinking Water Regulations (NPDWRs) for all water sources utilized. The primacy agency may also require the public water system issue a boil water advisory and appropriate public notice for the period of time the emergency source is in operation.

Other Utilization – a source not defined as Permanent, Seasonal, Interim or Emergency. An example of a source identified as "Other" could include abandoned or inactive wells, or other such facilities not used for drinking water consumption (e.g., irrigation.)

Guidance for Other Sources: EPA does not recommend using an "Other" source as a drinking water source without prior primacy agency approval and background monitoring (e.g., acute contaminants.) In addition, the primacy agency should update the inventory database to appropriately reflect the status of an "Other" source.

Water Haulers - Drinking water delivered by water haulers should be considered as permanent, seasonal, interim or emergency utilization based on duration and/or frequency of use. For purposes of SDWIS, it does not matter which mechanism is used for delivering the drinking water; instead, sources are categorized by origin and when that water is being utilized.

MONITORING

The NPDWRs in 40 C.F.R. Part 141 and existing guidance documents (http://water.epa.gov/lawsregs/guidance/sdwa/index.cfm) describe monitoring requirements including frequency, analytical methods, parameters to be measured and reporting requirements based on the water system type (i.e., community or noncommunity), treatment and water source type (i.e., Subpart H or ground water.)

Monitoring should take into consideration utilization or status (i.e., Permanent, Seasonal, Interim, Emergency or Other.) A monitoring plan should be designed to capture data which characterizes the quality of the drinking water being delivered to the consumer. The data are used by the operator as part of the program to ensure that the drinking water is safe for human consumption. Where the primacy agency does not have specific regulatory requirements pertaining to systems with emergency and other utilization scenarios, systems should follow an operational program that includes background monitoring to initially characterize the source, procedures for putting the source into and out of service, and appropriate monitoring based on the source, population served (or volume that can be produced), treatment and additional factors as specified by the state while the source is in service. Regardless of which source is used, the public water system must comply with applicable NPDWRs at all times.

Finally, as part of its standard operating procedure, public water systems should notify their primacy agencies prior to or upon activating any seasonal, interim or emergency sources. The public water system should develop procedures for putting an emergency source type into service (e.g., flushing distribution system lines or purging stagnant water in the well), and should take any necessary actions to protect the source type when not in service.